

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of
Chen et al.

Serial No.: **10/676,965**

Filed: **October 1, 2003**

For: **Method and Apparatus to Improve CDMA
Reverse Link Performance**

Attorney's Docket No: **4740-212**

)
) Patent Pending
)

) Examiner: Kwasi Karikari
)

) Group Art Unit: 2617
)

) Confirmation No.: 8121
)
)

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

CERTIFICATE OF MAILING OR TRANSMISSION [37 CFR 1.8(a)]

I hereby certify that this correspondence is being:

☐ deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop Appeal Brief Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

☐ transmitted by facsimile on the date shown below to the United States Patent and Trademark Office at (703) 293-8300.

August 24, 2007

Date

Kathleen L. McDermott
Kathleen L. McDermott

This correspondence is being:

☒ electronically submitted via EFS-Web

Dear Sir or Madam:

Filed concurrently with this Appeal Brief is an authorization for an Electronic Funds Transfer in the amount of \$500 to cover the fee associated with this appeal brief. Although no additional fees should be required, if any are, please charge them to Coats & Bennett, PLLC Deposit Account No. 18-1167.

APPEAL BRIEF UNDER 37 CFR 41.37(d)

(I.) REAL PARTY IN INTEREST

The real party in interest is Telefonaktiebolaget LM Ericsson (publ).

(II.) RELATED APPEALS AND INTERFERENCES

None.

(III.) STATUS OF CLAIMS

Claims 1-3, 5-12, and 14-24 are pending in this case. Claims 4 and 13 were cancelled. Claims 1-3, 5-12, and 14-24 stand rejected and are being appealed herein.

(IV.) STATUS OF AMENDMENTS

All amendments have been entered in this case except for the amendments to claims 1, 5, 10, 17, 20, included in Applicant's After Final Response filed on April 26, 2007. These amendments have not entered by the Patent Office.

(V.) SUMMARY OF CLAIMED SUBJECT MATTER

There are three independent claims on appeal, claims 1, 10 and 17.

Claim 1 is directed to a method of improving reverse link communications at a Radio Base Station (RBS) (element 18 in Figs. 1-2) providing a plurality of radio sectors (elements S1-S3 in Fig. 1). The method comprises forcing always-softer reverse link handoff conditions at the RBS for mobile stations served by the RBS based on assigning one or more additional reverse links from remaining sectors of the RBS if a reverse link is assigned to a mobile station from a serving sector of the RBS (Fig. 2; Step 102 of Fig. 3; Spec. ¶¶ [0022], [0024]-[25], [0028]-[29], [0031]-[32]). Further included in method claim 1 is combining reverse link signals from the assigned reverse links to obtain a combined reverse link signal for the mobile station (Step 104 of Fig. 3; Spec. ¶ [0030]).

Claim 10 is directed to a Radio Base Station (RBS) (element 18 in Figs. 1-2) having a plurality of radio sectors (elements S1-S3 in Fig. 1). The RBS comprises a handoff circuit and a combining circuit (control circuit 40 of Figure 2). The handoff control circuit is configured to

implement always-softer reverse link handoff at the RBS by assigning one or more additional reverse links from remaining sectors of the RBS if a reverse link is assigned to a mobile station from a serving sector of the RBS (Fig. 2; Step 102 of Fig. 3; Spec. ¶¶ [0022], [0024]-[25], [0028]-[29], [0031]-[32]). The combining circuit is configured to combine reverse link signals from the assigned reverse links to obtain a combined reverse link signal for the mobile station (Step 104 of Fig. 3; Spec. ¶ [0030]).

Claim 17 is directed to a method of improving reverse link communications at a Radio Base Station (RBS) (element 18 in Figs. 1-2) having a plurality of radio sectors (elements S1-S3 in Fig. 1). The method comprises selecting a first sector of the RBS as a serving sector for a mobile station and assigning forward and reverse links to the mobile station at the serving sector (Top of Fig. 3; Spec. ¶¶ [0024]-[25]). The method further includes selectively forcing an always-softer reverse link handoff condition for the mobile station at the RBS by assigning one or more additional reverse links to the mobile station at one remaining sectors of the RBS (Steps 100 and 102 of Fig. 3; Spec. ¶¶ [0026]-[29]). The method also includes combining the reverse link signals from the mobile station from the assigned reverse links to form a combined reverse link signal (Step 104 of Fig. 3; Spec. ¶ [0030]).

(VI.) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1, 3, 7, 10, 12, 17-19, and 22 are unpatentable under 35 U.S.C. 103(a) over U.S. Patent No. 5,625,876 (Gilhousen).

Whether claims 2, 9, 11, 16, and 24 are unpatentable under 35 U.S.C. 103(a) over Gilhousen in view of U.S. Patent No. 6,011,787 (Nakano).

Whether claims 5, 6, 8, 14, 15, 20, 21, and 23 are unpatentable under 35 U.S.C. 103(a) over Gilhousen in view of U.S. Patent Publication No. 2002/0154610 (Tiedemann).

(VII.) ARGUMENT

A. Claims 1, 3, 7, 10, 12, 17-19, and 22 are Not Obvious Over Gilhousen.

There is a fundamental difference between the teachings of Gilhousen and the present claimed invention. Gilhousen discloses one form of softer handoff. See col. 5, lines 26-28 in Gilhousen. With softer handoff, one sector of a radio base station receives reverse link signals from a mobile device. As the device moves about or as radio conditions improve, it may begin to receive forward link signals from a different sector of the same base station. If the signals received from the new sector are strong enough, the mobile unit and base station communicate via both sectors to improve signal quality. Otherwise, only the first sector serves the mobile unit. This is softer handoff. Gilhousen teaches one form of softer handoff where pilot signal strength is used to determine whether softer handoff should proceed. See Step 2 at col. 8, lines 56-60 of Gilhousen.

In complete contrast, the present claimed invention is not predicated on a signal strength determination. Instead, always-softer reverse link handoff conditions are forced regardless of link conditions. In fact, both the specification and prosecution history are replete with examples showing that Applicants have disavowed softer handoff, that softer handoff was well known at the time of their invention and that Gilhousen teaches one type of softer handoff. For example, see ¶¶ [0021]-[22] and [0031]-[32] of Applicants' Specification and lines 10-12 of Applicants' 'Response to Office Action' electronically submitted to the Patent Office on December 28, 2006.

Applicants have taken great care in differentiating their invention from conventional softer handoff. As shown later herein, Applicants have consistently used the term "forcing always-softer reverse link handoff conditions" throughout the specification and claims to mean something other than softer handoff. See Appeal Brief Section VII.A.1.a. Notably, the specification is replete with definitions and examples unequivocally demonstrating that the present claimed invention is markedly different from conventional softer handoff in that always-

softer reverse link handoff conditions are forced, not conditionally implemented as in Gilhousen. See Appeal Brief Section VII.A.1.a.

Despite the explicit use of this clearly defined terminology in the pending claims, the claim language has been construed so broadly by the Patent Office to include softer handoff. Such a finding is in clear conflict with the law of claim construction as detailed later herein. See Appeal Brief Section VII.A.1.a. For at least this reason, Applicants respectfully request the Board to overturn all claim rejections.

1. The Office Has Failed to Establish a *Prima Facie* Case of Obviousness.

To establish a *prima facie* case of obviousness, the Office must establish three basic requirements. MPEP §2143. First, there must be some teaching or suggestion in the art to combine reference teachings. Second, there must be a reasonable expectation of success. Lastly, the reference or combined references must teach all claim limitations. The Office has failed to establish a *prima facie* case of obviousness in rejecting claims 1, 3, 7, 10, 12, 17-19, and 22 for at least the reasons discussed below, and thus, the rejections should be overturned.

a. The Claim Term “Forcing Always-Softer Reverse Link Handoff Conditions” Has Been Misconstrued Or Ignored Altogether.

The Office has apparently interpreted the “forcing always-softer” claim term to include softer reverse link handoff. See Final Office Action, Item 2, pp. 2-3. Such an overly broad interpretation impermissibly renders the words “forcing” and “always” devoid of any appreciable meaning within the context of the present claimed invention. It is as if the Patent Office has completely ignored this claim language. For this reason alone, all of the rejections should be reversed.

The law of claim construction in *ex parte* prosecution requires the Examiner to give a claim term its plain and ordinary meaning, unless it is inconsistent with the specification. MPEP §2111. Moreover, the claims themselves provide substantial guidance as to the meaning of particular claim terms. The context of the surrounding words of the claim is considered in determining the ordinary and customary meaning of the claim terms. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005). And, of course, the construction given a claim term must be consistent with the specification and how a person of ordinary skill in the art would construe the term in light of the specification. The Examiner's implicit construction fails on all accounts. It is inconsistent with the plain and ordinary meaning of the terms at issue, and inconsistent with the specification and how a person of ordinary skill in the art would construe the terms in light of the specification.

"To force", properly construed, means "to compel, constrain, or oblige." See Exhibit 1, Definition of "Force" from Dictionary.com. "Always", properly construed, means "every time; on every occasion; without exception." See Exhibit 2, Definition of "Always" from Dictionary.com. These are the plain and ordinary meanings of the words. These constructions are also consistent with the specification and how a person of ordinary skill in the art would construe the words.

The term "forcing always-softer reverse link handoff conditions" is used consistently throughout the specification and means to compel, constrain, or oblige the assignment of additional reverse links from the remaining (non-serving) sectors of an RBS regardless of forward link conditions. See Spec., ¶ [0033] where the terms "remaining sectors" and "non-serving sectors" are used interchangeably. For example, paragraph [0032] of the specification states that "the present invention markedly departs from the conventional approach by forcing the always-softer handoff condition at serving RBSs on the mobile station's reverse link

irrespective whether the mobile station is in softer handoff at the RBS on the forward link” (emphasis added).

Paragraph [0033] of the specification further states that “each RBS 18-x can be configured to force the always-softer handoff reverse link handoff condition by **allocating an extra reverse link from one of its remaining (non-serving) sectors**, some of its remaining sectors, or all of its remaining sectors” (emphasis added). In yet another example, paragraph [0034] of the specification states that “exemplary RBS 18-x forces the always-softer condition by assigning one or more reverse links from non-serving sectors **irrespective of whether those sectors are suitable for serving the mobile station in the forward link**, i.e., irrespective of whether such sectors are identified in the mobile station’s active set” (emphasis added). The term “serving sector” is a well known term of art in the wireless communication arena meaning a sector of an RBS that serves a mobile station on a forward link and which serves as a receiving sector on a reverse link. See Spec., ¶ [0005].

It is clear from both the specification and claims that forward link signal conditions are irrelevant when forcing always-softer reverse link handoff conditions. Instead, the present claimed invention forces always-softer reverse link handoff conditions by assigning one or more additional reverse links from remaining (non-serving) sectors of the RBS regardless of whether those sectors are suitable for forward link communication.

However, the Patent Office construes the “forcing always-softer” claim term to include softer handoff. See Final Office Action, Item 3, p. 4. In doing so, the Office ignores the words “forcing” and “always” because softer handoff is undeniably conditional. That is, softer handoff only occurs when received signal strength indicates that one or more non-serving sectors of a common base station provide sufficient signal quality in the forward link direction. If signal quality is poor, softer handoff is not implemented for that non-serving sector. Gilhousen discloses but one way of implementing softer handoff where pilot signals received from non-serving sectors of a base station are monitored to determine whether softer handoff should be

carried out. See col. 8 line 51 to col. 9 line 13 of Gilhousen. The Patent Office recognizes that Gilhousen's softer handoff technique is conditional. See Final Office Action, Item 3, p. 4.

Equating softer handoff to "forcing always-softer reverse link handoff conditions" strips the words "forcing" and "always" of any appreciable meaning as used within the context of the present claimed invention. The only explanation provided by the Office for such an overly broad claim construction is a single sentence in the Final Office Action which states that the "forcing always..." claim language was "coined in the specification and the claims." See Final Office Action, Item 2, p. 3. This strongly suggests that the Office has altogether ignored the words "forcing" and "always." Such a finding is legally erroneous, especially given the plain and ordinary meaning of these words and the explicit and consistent use of this terminology throughout the specification and claims. For at least this reason, the rejection of claims 1, 3, 7, 10, 12, 17-19, and 22 should be reversed.

b. Gilhousen Fails to Teach All Independent Claim Limitations.

The rejection of claims 1, 3, 7, 10, 12, 17-19, and 22 should be also overturned because Gilhousen fails to teach all limitations of the independent claims. When judging the patentability of a claim against prior art references, "all words in a claim must be considered." *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970). Importantly, the Office must show all claim limitations are taught by the reference or references relied on by the Office. MPEP §2143.03. Gilhousen fails to teach the forcing always-softer reverse link handoff conditions limitation recited in each independent claim. For this reason alone, the rejection of claims 1, 3, 7, 10, 12, 17-19, and 22 must be overturned.

In support of Applicants' position, the Board is directed to col. 8, line 51 to col. 9, line 21 of Gilhousen, the section in Gilhousen primarily relied on by the Examiner in rejecting all independent claims. In this section of Gilhousen, softer handoff is conditionally implemented between two sectors (alpha and beta) of a common base station X. Before softer handoff

begins, a mobile unit is initially served only by sector alpha. That is, the mobile unit receives information from sector alpha via a forward link and transmits information to sector alpha via a reverse link. As such, only sector alpha is listed in the mobile unit's "Active Set" which identifies those sectors of base station X that actively serve the mobile unit.

During softer handoff, the mobile unit monitors pilot signals received from a non-serving sector of base station X, sector beta, to determine if sector beta is suitable for forward link communication. If the pilot signal received from sector beta satisfies a predetermined threshold and sector beta has sufficient resources (Steps 3 and 4 at col. 8 of Gilhousen), softer handoff is completed between sectors alpha and beta (Steps 4-9 at col. 8 through col. 9 of Gilhousen). This involves sector beta providing both forward and reverse links to the mobile unit (Steps 5-6 at col. 8 through col. 9 of Gilhousen). This involves base station X updating the mobile station's "Active Set" to indicate that both sector alpha and beta serve the mobile unit (See Step 7 at col. 9 of Gilhousen). As such, sector beta is no longer a non-serving sector. Instead, both sectors alpha and beta serve the mobile unit in that they provide both forward and reverse link communication to the unit.

To the contrary, the present claimed invention forces **always-softer** reverse link handoff conditions at an RBS by assigning one or more additional reverse links from remaining (non-serving) sectors of the RBS if a reverse link is assigned to a mobile station from a serving sector of the RBS. Thus, additional reverse link assignments are forced upon the remaining (non-serving) sectors of the RBS without necessarily imposing corresponding forward link requirements, i.e., without implementing softer handoff.

Gilhousen does not teach this claim feature. Instead, Gilhousen teaches softer handoff where sector beta transitions from a non-serving sector to a serving sector during the handoff process. As a result, Gilhousen's mobile unit receives forward and reverse link signals from both sector alpha and beta of base station X. If this were not the case, base station X would not

update the mobile unit's "Active Set" during the softer handoff process to indicate that sector beta has become a serving sector. See Step 7 at col. 9 in Gilhousen.

According to the present claimed invention, additional forward links are not necessarily assigned to the remaining (non-serving) sectors of an RBS as is the case with the softer handoff teachings of Gilhousen. Instead, the non-serving sectors of the present claimed invention provide only additional reverse links and thus do not become serving sectors like sector beta in Gilhousen which provides both additional reverse and forward links (i.e., softer handoff).

Furthermore, Gilhousen does not **force** always-softer reverse link handoff conditions. Instead, Gilhousen's softer handoff technique is conditional as recognized by the Patent Office. See p. 4 of the Final Office Action. Softer handoff occurs in Gilhousen only when pilot signal strength satisfies a predetermined threshold (Step 3 in col. 8 of Gilhousen). If pilot signal strength fails to satisfy the threshold, softer handoff does not occur, and is thus not forced within the meaning of the claimed invention. As such, Gilhousen does not teach all limitations of the independent claims. Mainly, Gilhousen fails to teach forcing always-softer reverse link handoff conditions at an RBS by assigning one or more additional reverse links from remaining sectors of the RBS. Accordingly, the rejection of claims 1, 3, 7, 10, 12, 17-19, and 22 must be overturned.

**c. Gilhousen Fails to Teach the "Irrespective" Limitation of
Dependent Claims 3 and 12.**

Dependent claims 3 and 12 each includes the further limitation that the one or more additional reverse links are assigned irrespective of whether the corresponding sectors are suitable for forward link assignments to the mobile station. The Patent Office alleges that Gilhousen teaches this limitation because sector beta in Gilhousen is initially listed in the candidate set of sectors while sector alpha is listed in the active set during the beginning part of Gilhousen's softer handoff process. See p. 5 of the Final Office Action. The portion of

Gilhousen relied on the Office corresponds to one step in a multi-step softer handoff process.

See col. 8, line 51 to col. 9, line 13 of Gilhousen.

In Step 1 of Gilhousen's softer handoff process, the mobile unit and base station X communicate via sector alpha which is listed in the mobile unit's active set. The active set identifies those sectors of base station X that actively serve a mobile unit. If the mobile unit determines signal strength received from sector beta is strong enough (Step 2), the mobile unit moves sector beta into the candidate set to indicate sector beta is suitable for forward link communication (Step 3). If there are sufficient resources available in sector beta (Step 4), reverse link communication is initiated between the mobile unit and sector beta (Step 5).

Notably, Gilhousen's softer handoff process does not end here. Instead, the mobile unit also begins to receive forward link communication from sector beta (Step 6). In response, sector beta is moved from the candidate set to the active set, indicating that sector beta serves the mobile unit on a forward link (Steps 7 and 8). At this point in the softer handoff process, both sector alpha and beta serve the mobile unit. As such, sector beta can no longer be considered a non-serving sector. Moreover, softer handoff occurs in Gilhousen only if pilot signals received from sector beta are strong enough to indicate that sector beta is suitable for forward link communication. If so, both forward and reverse link assignments are made via sector beta, completing the softer handoff process. Otherwise, neither reverse nor forward link assignments are made at sector beta.

According to claims 3 and 12, additional reverse link assignments are made at an RBS sector irrespective of whether the sector is suitable for forward link assignments. Not only does Gilhousen fail to teach this claim feature, Gilhousen actually teaches away from it in that additional reverse link assignments are made in Gilhousen only if the RBS sector is suitable for forward link communication. See Step 2 at col. 8 of Gilhousen. As such, the rejection of claims 3 and 12 should be overturned for this additional reason.

**d. Gilhousen Fails to Teach the “Independently” Limitation of
Dependent Claim 19.**

Claim 19 includes the further limitation that forward link assignments are made independently of assigning the one or more additional reverse links. However, in Gilhousen, the assignment of additional forward links expressly depends on the assignment of additional reverse links. See col. 8, line 51 to col. 9, line 13 of Gilhousen. According to steps 2, 5 and 6 of Gilhousen’s softer handoff process, both forward and reverse link assignments are made via sector beta only if signal strength is sufficient. See col. 8 and 9 in Gilhousen. Thus, either sector beta is assigned both forward and reverse links or no links at all. As such, the rejection of claim 19 should be overturned because Gilhousen teaches away from making forward link assignments independently of assigning one or more additional reverse links.

**B. Claims 2, 9, 11, 16, and 24 are Not Obvious Over Gilhousen in view of
Nakano.**

Claims 2 and 9 depend from claim 1, claims 11 and 16 depend from claim 10, and claim 24 depends from claim 17. Accordingly, the rejections should be overturned for several reasons previously stated. First, the “forcing always-softer reverse link handoff conditions” claim term has been misconstrued or ignored altogether as previously explained herein. See Appeal Brief Section VII.A.1.a. Second, Gilhousen fails to teach the forcing always-softer reverse link handoff conditions claim limitation as previously explained herein. See Appeal Brief Section VII.A.1.b (pp. 8-10). For at least these reasons, the rejection of claims 2, 9, 11, 16, and 24 should be overturned.

Furthermore, Nakano fails to teach the limitations of claims 9, 16 and 24 as alleged by the Patent Office. See Item 4, pp. 8 and 9 of the Final Office Action. Claims 9, 16 and 24 each includes the further limitation that a finger search window used by RAKE receiver radio circuits at the RBS be increased in conjunction with forcing the always-softer reverse link handoff

conditions. The Office alleges Nakano teaches a RAKE receiver that “carries out maximal radio combining of outputs.” See bottom of p. 8 of the Final Office Action.

Clearly, the Office’s findings with regard to Nakano are irrelevant with respect to the patentability of claims 9, 16, and 24. Claims 9, 16, and 24 are silent regarding maximal ratio combining. Unrelatedly, claims 9, 16 and 24 relate to **increasing the finger search window** used by RAKE receiver radio circuits at an RBS in conjunction with forcing the always-softer reverse link handoff conditions. Nakano does not teach this limitation. The Office fails to offer one scintilla of evidence showing otherwise. Thus, the Office has failed to establish a *prima facie* case of obviousness and the rejection of claims 9, 16 and 24 must be overturned for this additional reason.

C. Claims 5, 6, 8, 14, 15, 20, 21, and 23 are Not Obvious Over Gilhousen in view of Tiedemann.

Claims 5, 6, and 8 depend from claim 1. Claims 14 and 15 depend from claim 10. Claims 20, 21 and 23 depend from claim 17. Accordingly, the rejections should be overturned for several reasons previously stated. First, the “forcing always-softer reverse link handoff conditions” claim term has been misconstrued or ignored altogether as previously explained herein. See Appeal Brief Section VII.A.1.a. Second, Gilhousen fails to teach the forcing always-softer reverse link handoff conditions claim limitation as previously explained herein. See Appeal Brief Section VII.A.1.b (pp. 8-10). For at least these reasons, the rejection of claims 5, 6, 8, 14, 15, 20, 21, and 23 should be overturned.

(VIII.) CLAIMS APPENDIX

1. A method of improving reverse link communications at a Radio Base Station (RBS) providing a plurality of radio sectors, the method comprising:
 - forcing always-softer reverse link handoff conditions at the RBS for mobile stations served by the RBS based on assigning one or more additional reverse links from remaining sectors of the RBS if a reverse link is assigned to a mobile station from a serving sector of the RBS; and
 - combining reverse link signals from the assigned reverse links to obtain a combined reverse link signal for the mobile station.
2. The method of claim 1, wherein combining reverse link signals from the assigned reverse links to obtain a combined reverse link signal for the mobile station comprises performing maximum ratio combining of the reverse link signals.
3. The method of claim 1, further comprising assigning the one or more additional reverse links irrespective of whether the corresponding sectors are suitable for forward link assignments to the mobile station.
- 4 (Cancelled).
5. The method of claim 1, wherein forcing always-softer reverse link handoff conditions at the RBS for mobile stations served by the RBS based on assigning one or more additional reverse links from remaining sectors of the RBS if a reverse link is assigned to a mobile station from a serving sector of the RBS comprises:

determining whether any reverse link supplemental channel (R-SCH) is assigned to the mobile station; and
forcing the always-softer reverse link handoff condition if a R-SCH is assigned to the mobile station and not forcing the always-softer reverse link handoff condition if no R-SCH is assigned to the mobile station.

6. The method of claim 5, further comprising forcing the always-softer reverse link handoff condition at the RBS for any reverse link fundamental channel (R-FCH) assigned to the mobile station in conjunction with forcing the always-softer reverse link handoff condition at the RBS for any R-SCH assigned to the mobile station.

7. The method of claim 1, further comprising causing the mobile station to reduce a reverse link transmit power in conjunction with implementing the always-softer handoff to account for improved reception quality of the combined reverse link signal.

8. The method of claim 7, wherein causing the mobile station to reduce a reverse link transmit power in conjunction with implementing the always-softer reverse link handoff comprises causing the mobile station to reduce a transmit gain of a reverse link supplemental channel signal transmitted by the mobile station to the RBS on the assigned reverse links.

9. The method of claim 1, further comprising increasing a finger search window used by RAKE receiver radio circuits at the RBS in conjunction with forcing the always-softer reverse link handoff condition at the RBS.

10. A Radio Base Station (RBS) having a plurality of radio sectors, the RBS comprising:
a handoff control circuit configured to implement always-softer reverse link handoff at the RBS by assigning one or more additional reverse links from remaining sectors of the RBS if a reverse link is assigned to a mobile station from a serving sector of the RBS; and
a combining circuit to combine reverse link signals from the assigned reverse links to obtain a combined reverse link signal for the mobile station.
11. The RBS of claim 10, wherein the combining circuit employs maximum ratio combining to combine the reverse link signals from the assigned reverse links.
12. The RBS of claim 10, wherein the handoff control circuit is configured to assign the one or more additional reverse links irrespective of whether the corresponding sectors are suitable for forward link assignments to the mobile station.
- 13 (Cancelled).
14. The RBS of claim 10, wherein the handoff control circuit is configured to implement always-softer reverse link handoff based on determining whether any reverse link supplemental channel (R-SCH) is assigned to the mobile station, implement the always-softer reverse link handoff if a R-SCH is assigned to the mobile station, and not implement the always-softer reverse link handoff if no R-SCH is assigned to the mobile station.
15. The RBS of claim 14, wherein the handoff control circuit is configured to implement the always-softer reverse link handoff at the RBS for any reverse link fundamental channel (R-FCH)

assigned to the mobile station in conjunction with implementing the always-softer reverse link handoff at the RBS for any R-SCH assigned to the mobile station.

16. The RBS of claim 10, wherein the RBS is configured to use an increased finger search window for one or more RAKE receiver radio circuits used at the RBS for receiving the reverse link signals from the mobile station in conjunction with forcing the always-softer reverse link handoff condition for the mobile station.

17. A method of improving reverse link communications at a Radio Base Station (RBS) having a plurality of radio sectors, the method comprising:
- selecting a first sector of the RBS as a serving sector for a mobile station and assigning forward and reverse links to the mobile station at the serving sector;
 - selectively forcing an always-softer reverse link handoff condition for the mobile station at the RBS by assigning one or more additional reverse links to the mobile station at one remaining sectors of the RBS; and
 - combining the reverse link signals from the mobile station from the assigned reverse links to form a combined reverse link signal.
18. The method of claim 17, further comprising transmitting the combined reverse link signal over a backhaul link to a supporting Base Station Controller (BSC).
19. The method of claim 17, further comprising making forward link assignments independently of assigning the one or more additional reverse links to the mobile station.
20. The method of claim 17, wherein selectively forcing an always-softer reverse link handoff condition for the mobile station at the RBS by assigning one or more additional reverse links to the mobile station at one remaining sectors of the RBS comprises:
- implementing always-softer reverse link handoff for the mobile station if any reverse link supplemental channels (R-SCHs) are being used for the mobile station, and not
 - implementing always-softer reverse link handoff for the mobile station if no R-SCHs are being used for the mobile station.
21. The method of claim 20, further comprising if the always-softer reverse link handoff condition is forced for any R-SCHs associated with the mobile station, then forcing the always-

softer reverse link handoff condition for any reverse link fundamental channel (R-FCH) associated with the mobile station.

22. The method of claim 17, further comprising causing the mobile station to reduce a reverse link transmit power if the always-softer reverse link handoff condition is forced for the mobile station.

23. The method of claim 22, wherein causing the mobile station to reduce a reverse link transmit power if the always-softer reverse link handoff condition is forced for the mobile station comprises causing the mobile station to reduce a transmit gain of a reverse link supplemental channel signal transmitted by the mobile station to the RBS on the assigned reverse links.

24. The method of claim 17, further comprising increasing a finger search window used by RAKE receiver radio circuits at the RBS for receiving reverse link signals from the mobile station to account for potentially greater reverse link signal dispersion at the RBS arising from forcing the always-softer reverse link handoff condition.

(IX.) EVIDENCE APPENDIX

Exhibit 1: Definition of “Force” from Dictionary.com

Exhibit 2: Definition of “Always” from Dictionary.com

(X.) RELATED PROCEEDINGS APPENDIX

None.

Respectfully submitted,

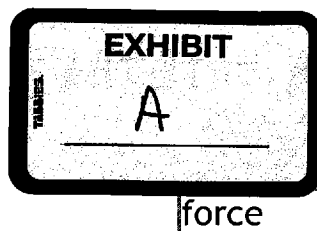
COATS & BENNETT, P.L.L.C.



Mark R. Bilak
Registration No.: 47,423

Dated: August 24, 2007

P.O. Box 5
Raleigh, NC 27602
Telephone: (919) 854-1844
Facsimile: (919) 854-2084



Premium Content | Register | Log In | Help

force

Search

Dictionary Thesaurus Encyclopedia All Reference The Web



22 results for: force

(Browse Nearby Entries)

Ads by Google

Measuring Force?

Innovative solutions for force or weight activated control & measure
www.forceswitch.com

Force Protection

Anti Terrorism Force Protection PSD Training Evasive Driving
www.safehouse.com/evasive.htm

Air Force Friendly Degree

Air Force experience evaluated for transfer credit at AIU Online.
www.AIUdegreeOnline.com/Air-Force

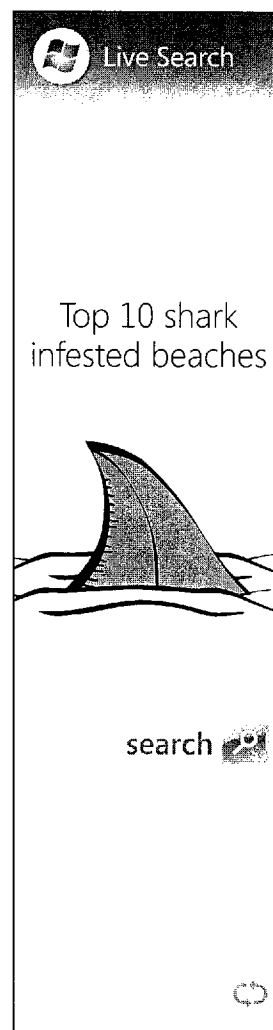
Dictionary.com Unabridged (v 1.1) - Cite This Source

force [fawrs, fohrs] [Pronunciation Key](#) - [Show IPA Pronunciation](#) *noun, verb, forced, forc·ing.*

-noun

1. physical power or strength possessed by a living being: *He used all his force in opening the window.*
2. strength or power exerted upon an object; physical coercion; violence: *to use force to open the window; to use force on a person.*
3. strength; energy; power; intensity: *a personality of great force.*
4. power to influence, affect, or control; efficacious power: *the force of circumstances; a force for law and order.*
5. *Law.* unlawful violence threatened or committed against persons or property.
6. persuasive power; power to convince: *They felt the force of his arguments.*
7. mental or moral strength: *force of character.*
8. might, as of a ruler or realm; strength for war.
9. Often, **forces.** the military or fighting strength, esp. of a nation.
10. any body of persons combined for joint action: *a sales force.*
11. intensity or strength of effect: *the force of her acting.*
12. *Physics.*
 - a. an influence on a body or system, producing or tending to produce a change in movement or in shape or other effects.
 - b. the intensity of such an influence. *Symbol:* F, f
13. any influence or agency analogous to physical force: *social forces.*

Free software! Get instant dictionary, thesaurus, and encyclopedia access from most Mac and Windows programs.



ADVERTISEMENT

14. binding power, as of a contract.
15. *Baseball.* FORCE PLAY.
16. value; significance; meaning.
17. *Billiards.* a stroke in which the cue ball is forcibly struck directly below the center in such a manner as to cause it to stop abruptly, bound back, or roll off to one side after hitting the object ball.
—*verb (used with object)*
18. to compel, constrain, or oblige (oneself or someone) to do something: *to force a suspect to confess.*
19. to drive or propel against resistance: *He forced his way through the crowd. They forced air into his lungs.*
20. to bring about or effect by force.
21. to bring about of necessity or as a necessary result: *to force a smile.*
22. to put or impose (something or someone) forcibly on or upon a person: *to force one's opinions on others.*
23. to compel by force; overcome the resistance of: *to force acceptance of something.*
24. to obtain or draw forth by or as if by force; extort: *to force a confession.*
25. to enter or take by force; overpower: *They forced the town after a long siege.*
26. to break open (a door, lock, etc.).
27. to cause (plants, fruits, etc.) to grow or mature at an increased rate by artificial means.
28. to press, urge, or exert (an animal, person, etc.) to violent effort or to the utmost.
29. to use force upon.
30. to rape.
31. *Baseball.*
 - a. to cause (a base runner) to be put out by obliging the runner, as by a ground ball, to vacate a base and attempt to move to the next base in order to make room for another runner or the batter.
 - b. to cause (a base runner or run) to score, as by walking a batter with the bases full (often fol. by *in*).
32. *Cards.*
 - a. to compel (a player) to trump by leading a suit of which the player has no cards.
 - b. to compel a player to play (a particular card).
 - c. to compel (a player) to play so as to make known the strength of the hand.
33. *Photography.*
 - a. to develop (a print or negative) for longer than usual in order to increase density or bring out details.
 - b. to bring out underexposed parts of (a print or negative) by adding alkali to the developer.
34. *Archaic.* to give force to; strengthen; reinforce.
—*verb (used without object)*
35. to make one's way by force.
—*Idiom*
36. **in force,**
 - a. in operation; effective: *This ancient rule is no longer in force.*
 - b. in large numbers; at full strength: *They attacked in force.*

[Origin: 1250-1300; (n.) ME < MF < VL **fortia*, deriv. of L *fortis* strong; (v.) ME *forcen* < AF, OF *forcer*, deriv. of the n.]

—*Related forms*

force·a·ble, *adjective*

forceless, *adjective*

forcer, *noun*

forc·ing·ly, *adverb*


—*Synonyms* 3. vigor. See **STRENGTH**. 4. compulsion, constraint. 6. efficacy, effectiveness, cogency, potency, validity. 18. coerce. 19. impel. 25. overcome; violate, ravish, rape.

—*Antonyms* 3. weakness. 6. impotence.

Dictionary.com Unabridged (v 1.1)

Based on the Random House Unabridged Dictionary, © Random House, Inc. 2006.

American Heritage Dictionary – Cite This Source

force  (fōrs, fōrs) [Pronunciation Key](#)
n.

1. The capacity to do work or cause physical change; energy, strength, or active power: *the force of an explosion.*
2.
 - a. Power made operative against resistance; exertion: *use force in driving a nail.*
 - b. The use of physical power or violence to compel or restrain: *a confession obtained by force.*
 - c. Intellectual power or vigor, especially as conveyed in writing or speech.
 - d. Moral strength.
 - e. A capacity for affecting the mind or behavior; efficacy: *the force of logical argumentation.*
 - f. One that possesses such capacity: *the forces of evil.*
 - g. A body of persons or other resources organized or available for a certain purpose: *a large labor force.*
 - h. A person or group capable of influential action: *a retired senator who is still a force in national politics.*
 - i. Military strength.
 - j. The entire military strength, as of a nation. Often used in the plural.
 - k. A unit of a nation's military personnel, especially one deployed into combat: *Our forces have at last engaged the enemy.*
3.
 - a. Intellectual power or vigor, especially as conveyed in writing or speech.
 - b. Moral strength.
 - c. A capacity for affecting the mind or behavior; efficacy: *the force of logical argumentation.*
 - d. One that possesses such capacity: *the forces of evil.*
 - e. A body of persons or other resources organized or available for a certain purpose: *a large labor force.*
 - f. A person or group capable of influential action: *a retired senator who is still a force in national politics.*
 - g. Military strength.
 - h. The entire military strength, as of a nation. Often used in the plural.
 - i. A unit of a nation's military personnel, especially one deployed into combat: *Our forces have at last engaged the enemy.*
4.
 - a. A body of persons or other resources organized or available for a certain purpose: *a large labor force.*
 - b. A person or group capable of influential action: *a retired senator who is still a force in national politics.*
 - c. Military strength.
 - d. The entire military strength, as of a nation. Often used in the plural.
 - e. A unit of a nation's military personnel, especially one deployed into combat: *Our forces have at last engaged the enemy.*
5.
 - a. Military strength.
 - b. The entire military strength, as of a nation. Often used in the plural.
 - c. A unit of a nation's military personnel, especially one deployed into combat: *Our forces have at last engaged the enemy.*
6. *Law* Legal validity.
7. *Physics* A vector quantity that tends to produce an acceleration of a body in the direction of its application.
8. *Baseball* A force play.

tr.v. **forced**, **forc·ing**, **forc·es**

1. To compel through pressure or necessity: *I forced myself to practice daily. He was forced to take a second job.*
2.
 - a. To gain by the use of force or coercion: *force a confession.*
 - b. To move or effect against resistance or inertia: *forced my foot into the shoe.*
 - c. To inflict or impose relentlessly: *He forced his ideas upon the group.*
 - d. To put undue strain on: *She forced her voice despite being hoarse.*
 - e. To increase or accelerate (a pace, for example) to the maximum.
 - f. To produce with effort and against one's will: *force a laugh in spite of pain.*
 - g. To use (language) with obvious lack of ease and naturalness.
 - h. To move, open, or clear by force: *forced our way through the crowd.*
 - i. To break down or open by force: *force a lock.*
 - j. To put (a runner) out on a force play.
 - k. To allow (a run) to be scored by walking a batter when the bases are loaded.
3.
 - a. To put undue strain on: *She forced her voice despite being hoarse.*
 - b. To increase or accelerate (a pace, for example) to the maximum.
 - c. To produce with effort and against one's will: *force a laugh in spite of pain.*
 - d. To use (language) with obvious lack of ease and naturalness.
 - e. To move, open, or clear by force: *forced our way through the crowd.*
 - f. To break down or open by force: *force a lock.*
 - g. To put (a runner) out on a force play.
 - h. To allow (a run) to be scored by walking a batter when the bases are loaded.
4.
 - a. To move, open, or clear by force: *forced our way through the crowd.*
 - b. To break down or open by force: *force a lock.*
 - c. To put (a runner) out on a force play.
 - d. To allow (a run) to be scored by walking a batter when the bases are loaded.
5. To rape.
6. *Botany* To cause to grow or mature by artificially accelerating normal processes.
7. *Baseball*
 - a. To put (a runner) out on a force play.
 - b. To allow (a run) to be scored by walking a batter when the bases are loaded.
8. *Games* To cause an opponent to play (a particular card).

[Middle English, from Old French, from Medieval Latin *fortia*, from neuter pl. of Latin *fortis*, **strong**; see *bhergh-*² in Indo-European roots.]

force'a·ble *adj.*, **forc'er** *n.*

Synonyms: These verbs mean to cause a person or thing to follow a prescribed or dictated course. *Force*, the most general, usually implies the exertion of physical power or the operation of circumstances that permit no options: *Tear gas forced the fugitives out of their hiding place.*

Compel applies especially to an act dictated by one in authority: *Say nothing unless you're compelled to.*

Coerce invariably implies the use of strength or harsh measures in securing compliance: *"The man of genius rules . . . by persuading an efficient minority to coerce an indifferent and self-indulgent majority"* (James Fitzjames Stephen).

Constrain suggests that one is bound to a course of action by physical or moral means or by the operation of compelling circumstances: *"I will never be by violence constrained to do anything"* (Elizabeth I).

Oblige implies the operation of authority, necessity, or moral or ethical considerations: *"Work consists of whatever a body is obliged to do"* (Mark Twain).

Obligate applies when compliance is enforced by a legal contract or by the dictates of one's conscience or sense of propriety: *I am obligated to repay the loan.* See Also Synonyms at [strength](#).

(Download Now or Buy the Book)

The American Heritage® Dictionary of the English Language, Fourth Edition

Copyright © 2006 by Houghton Mifflin Company.
Published by Houghton Mifflin Company. All rights reserved.

Online Etymology Dictionary – Cite This Source

force (n.)

c.1300, from O.Fr. *force*, from L.L. *fortia*, from neut. pl. of L. *fortis* "strong" (see *fort*). Meaning "body of armed men, army" first recorded 1375. The verb is first attested 1330; its original sense was "to ravish" (a woman).

Online Etymology Dictionary, © 2001 Douglas Harper

WordNet – Cite This Source

force

noun

1. a powerful effect or influence; "the force of his eloquence easily persuaded them"
2. (physics) the influence that produces a change in a physical quantity; "force equals mass times acceleration"
3. physical energy or intensity; "he hit with all the force he could muster"; "it was destroyed by the strength of the gale"; "a government has not the vitality and forcefulness of a living man"
4. group of people willing to obey orders; "a public force is necessary to give security to the rights of citizens"
5. a unit that is part of some military service; "he sent Caesar a force of six thousand men" [syn: military unit]
6. an act of aggression (as one against a person who resists); "he may accomplish by craft in the long run what he cannot do by force and violence in the short one" [syn: violence]
7. one possessing or exercising power or influence or authority; "the mysterious presence of an evil power"; "may the force be with you"; "the forces of evil" [syn: power]
8. a group of people having the power of effective action; "he joined forces with a band of adventurers"
9. (of a law) having legal validity; "the law is still in effect" [syn: effect]
10. a putout of a base runner who is required to run; the putout is accomplished by holding the ball while touching the base to which the runner must advance before the runner reaches that base; "the shortstop got the runner at second on a force" [syn: force out]

verb

1. to cause to do through pressure or necessity, by physical, moral or intellectual means : "She forced him to take a job in the city"; "He squeezed her for information" [syn: coerce]
2. urge or force (a person) to an action; constrain or motivate [syn: impel]
3. move with force, "He pushed the table into a corner" [syn: push] [ant: draw]
4. impose urgently, importunately, or inexorably; "She forced her diet fads on him"
5. squeeze like a wedge into a tight space; "I squeezed myself into the corner" [syn: wedge]
6. force into or from an action or state, either physically or metaphorically; "She rammed her mind into focus"; "He drives me mad"
7. cause to move by pulling; "draw a wagon"; "pull a sled" [syn: pull]
8. do forcibly; exert force; "Don't force it!"
9. take by force; "Storm the fort" [syn: storm]

WordNet® 3.0, © 2006 by Princeton University.

American Heritage Dictionary of Idioms – Cite This Source

force

In addition to the idioms beginning with force, also see brute force; driving force; in force; join forces; reckon with (force to be reckoned with).

The American Heritage® Dictionary of Idioms by Christine Ammer.
Copyright © 1997 by The Christine Ammer 1992 Trust. Published by Houghton Mifflin Company.

Kernerman English Multilingual Dictionary (Beta Version) – Cite This Source

force¹ [fo:s] *noun*

strength or power that can be felt

Example: *the force of the wind*

<i>Arabic:</i> قُوَّة	<i>Japanese:</i> 力
<i>Chinese (Simplified):</i> 力	<i>Korean:</i> 힘, 세기
<i>Chinese (Traditional):</i> 力	<i>Latvian:</i> spēks; vara
<i>Czech:</i> síla	<i>Lithuanian:</i> jėga
<i>Danish:</i> styrke; kraft	<i>Norwegian:</i> kraft, makt
<i>Dutch:</i> kracht	<i>Polish:</i> siła
<i>Estonian:</i> jõud	<i>Portuguese (Brazil):</i> força
<i>Finnish:</i> voima	<i>Portuguese (Portugal):</i> força
<i>French:</i> force	<i>Romanian:</i> forță
<i>German:</i> die Kraft	<i>Russian:</i> сила
<i>Greek:</i> δύναμη, ισχύς, βία	<i>Slovak:</i> sila
<i>Hungarian:</i> erő	<i>Slovenian:</i> moč
<i>Icelandic:</i> afl, kraftur	<i>Spanish:</i> fuerza
<i>Indonesian:</i> daya	<i>Swedish:</i> styrka, kraft
<i>Italian:</i> forza	<i>Turkish:</i> güç

force² [fo:s] *noun*

a person or thing that has great power

Example: *the forces of Nature*

<i>Arabic:</i> قُوَّة	<i>Japanese:</i> 影響力
<i>Chinese (Simplified):</i> 威力	<i>Korean:</i> 영향력, 힘의 소유자
<i>Chinese (Traditional):</i> 威力	<i>Latvian:</i> spēks; vara
<i>Czech:</i> síla, moc	<i>Lithuanian:</i> jėga
<i>Danish:</i> magt	<i>Norwegian:</i> (-)kraft, (-)styrke
<i>Dutch:</i> macht	<i>Polish:</i> siła, moc
<i>Estonian:</i> jõud	<i>Portuguese (Brazil):</i> força
<i>Finnish:</i> voima, mahti	<i>Portuguese (Portugal):</i> força
<i>French:</i> force	<i>Romanian:</i> forță
<i>German:</i> die Kraft	<i>Russian:</i> сила
<i>Greek:</i> δύναμη	<i>Slovak:</i> sila
<i>Hungarian:</i> erő	<i>Slovenian:</i> sila
<i>Icelandic:</i> afl, kraftur	<i>Spanish:</i> fuerza
<i>Indonesian:</i> kekuatan	<i>Swedish:</i> styrka, kraft, makt
<i>Italian:</i> forza	<i>Turkish:</i> kuvvet

force³ [fo:s] *noun*

(sometimes with capital) a group of men prepared for action

Example: *the police force; the Royal Air Force*

<i>Arabic:</i> قُوَّة	<i>Japanese:</i> 軍隊
<i>Chinese (Simplified):</i> 部队	<i>Korean:</i> 조직화된 집단, (세력) 단체
<i>Chinese (Traditional):</i> 部隊	<i>Latvian:</i> spēki; karaspēks
<i>Czech:</i> (ozbrojené) síly; letectvo	<i>Lithuanian:</i> pajėgos
<i>Danish:</i> styrke	<i>Norwegian:</i> styrke
<i>Dutch:</i> macht	<i>Polish:</i> oddział, siły
<i>Estonian:</i> vägi, jõud	<i>Portuguese (Brazil):</i> força
<i>Finnish:</i> voimat	<i>Portuguese (Portugal):</i> força
<i>French:</i> force	<i>Romanian:</i> forță
<i>German:</i> die Truppe	<i>Russian:</i> вооружённый отряд; войска
<i>Greek:</i> δύναμη (γινόμεθα ἀνθρώπων)	<i>Slovak:</i> sily; zbor
<i>Hungarian:</i> (katonai) erő, (kar)hatalom	<i>Slovenian:</i> sila
<i>Icelandic:</i> mannafli, liðsafli	<i>Spanish:</i> cuerpo
<i>Indonesian:</i> angkatan	<i>Swedish:</i> styrka, trupp, kår
<i>Italian:</i> forza	<i>Turkish:</i> güç, kıta

force¹ [fo:s] *verb*

to make (someone or something) do something, go somewhere etc, often against his etc will

Example: *He forced me to give him money.*

<i>Arabic:</i> يُجبر	<i>Japanese:</i> ~させる
<i>Chinese (Simplified):</i> 强迫	<i>Korean:</i> 강요하다
<i>Chinese (Traditional):</i> 強迫	<i>Latvian:</i> piespiest (ar varu)
<i>Czech:</i> (pří)nutit	<i>Lithuanian:</i> (pri)versti
<i>Danish:</i> tvinge	<i>Norwegian:</i> tvinge, presse
<i>Dutch:</i> dwingen	<i>Polish:</i> zmusić
<i>Estonian:</i> sundima	<i>Portuguese (Brazil):</i> forçar, obrigar
<i>Finnish:</i> pakottaa	<i>Portuguese (Portugal):</i> obrigar
<i>French:</i> forcer (à)	<i>Romanian:</i> a sili (să)
<i>German:</i> zwingen	<i>Russian:</i> заставлять
<i>Greek:</i> (εξ)αναγκάζω	<i>Slovak:</i> prinútiť
<i>Hungarian:</i> (ki)kényszerít	<i>Slovenian:</i> prisiliti
<i>Icelandic:</i> þvinga, neyða	<i>Spanish:</i> forzar, obligar
<i>Indonesian:</i> memaksa	<i>Swedish:</i> tvinga
<i>Italian:</i> forzare, costringere	<i>Turkish:</i> zorlamak

force² [fo:s] *verb*

to achieve by strength or effort

Example: *He forced a smile despite his grief.*


<i>Arabic:</i> يَحْصِلُ بالقُوَّة	<i>Japanese:</i> 無理に出す
<i>Chinese (Simplified):</i> 强制	<i>Korean:</i> 억지로 ...하다
<i>Chinese (Traditional):</i> 強制	<i>Latvian:</i> piespiest; izspiest
<i>Czech:</i> vynutit (ze sebe)	<i>Lithuanian:</i> išspausti
<i>Danish:</i> fremtvinge	<i>Norwegian:</i> presse, forsere, overanstrenge
<i>Dutch:</i> forceren	<i>Polish:</i> wymusić
<i>Estonian:</i> pingutama	
<i>Finnish:</i> pakottaa	

<i>French:</i> contraindre	<i>Portuguese (Brazil):</i> forçar
<i>German:</i> erzwingen	<i>Portuguese (Portugal):</i> forçar
<i>Greek:</i> καταφέρνω με το ζόρι	<i>Romanian:</i> a (se) chinui (să)
<i>Hungarian:</i> (ki)erőszakol	<i>Russian:</i> заставлять
<i>Icelandic:</i> ná, *gera með erfiðismunum	<i>Slovak:</i> prinútiť sa (k)
<i>Indonesian:</i> memaksakan	<i>Slovenian:</i> prisiliti (se)
<i>Italian:</i> strappare	<i>Spanish:</i> forzar
	<i>Swedish:</i> tvinga (pressa) fram
	<i>Turkish:</i> zorla başarmak

See also: [forceful](#), [forces](#), [forced](#), [in](#), [into force](#)

Kernerman English Multilingual Dictionary (Beta Version), © 2000–2006 K Dictionaries Ltd.

The American Heritage Science Dictionary – Cite This Source

force  (fôrs) [Pronunciation Key](#)

1. Any of various factors that cause a body to change its speed, direction, or shape. Force is a vector quantity, having both magnitude and direction. Contributions of force from different sources can be summed to give the net force at any given point.
2. Any of the four natural phenomena involving the interaction between particles of matter. From the strongest to the weakest, the four forces are the **strong nuclear force**, the **electromagnetic force**, the **weak nuclear force**, and **gravity**.

The American Heritage® Science Dictionary
Copyright © 2002 by Houghton Mifflin Company.
Published by Houghton Mifflin Company. All rights reserved.

American Heritage New Dictionary of Cultural Literacy, Third Edition – Cite This Source
force

In [physics](#), something that causes a change in the motion of an object. The modern definition of force (an object's [mass](#) multiplied by its [acceleration](#)) was given by Isaac [Newton](#) in [Newton's laws of motion](#). The most familiar unit of force is the pound. (See [mechanics](#).)

Note: Gravity, and therefore [weight](#), is a kind of force.

[Chapter:] *Physical Sciences and Mathematics*

The American Heritage® New Dictionary of Cultural Literacy, Third Edition
Copyright © 2005 by Houghton Mifflin Company.
Published by Houghton Mifflin Company. All rights reserved.

American Heritage Stedman's Medical Dictionary – Cite This Source

force (fôrs)

n.

1. The capacity to do work or cause physical change; energy, strength, or active power.
2. A vector quantity that tends to produce an acceleration of a body in the direction of its application.

The American Heritage® Stedman's Medical Dictionary
Copyright © 2002, 2001, 1995 by Houghton Mifflin Company. Published by Houghton Mifflin

Company.

Merriam-Webster's Medical Dictionary – Cite This Source

Main Entry: **force**

Pronunciation: 'fO(&)rs, 'fo(&)rs

Function: *noun*

: an agency or influence that if applied to a free body results chiefly in an acceleration of the body and sometimes in elastic deformation and other effects

Merriam-Webster's Medical Dictionary, © 2002 Merriam-Webster, Inc.

Merriam-Webster's Dictionary of Law – Cite This Source

Main Entry: **force**

Function: *noun*

1 : a cause of motion, activity, or change

intervening force

: a force that acts after another's negligent act or omission has occurred and that causes injury to another : INTERVENING CAUSE at, CAUSE

irresistible force

: an unforeseeable event esp. that prevents performance of an obligation under a contract : FORCE MAJEURE

2 : a body of persons available for a particular end <the labor *force*>; *specifically*: POLICE FORCE —usually used with *the*

3 : violence, compulsion, or constraint exerted upon or against a person or thing

constructive force

: the use of threats or intimidation for the purpose of gaining control over or preventing resistance from another

dead·ly force

: force that is intended to cause or that carries a substantial risk of causing death or serious bodily injury —compare NONDEADLY FORCE in this entry

NOTE: As a general rule, deadly force may be used without incurring criminal or tort liability when one reasonably believes that one's life or safety is in danger. In some cases, a person's unreasonable belief in the need for deadly force has been used to justify reducing a charge of murder to voluntary manslaughter. Additionally, a police officer is generally justified in using deadly force to prevent the escape of a suspect who threatens the officer or who the officer has probable cause to believe has committed a violent crime.

lawful force

: force that is considered justified under the law and does not create criminal or tort liability —compare UNLAWFUL FORCE in this entry

mod·er·ate force

/ 'mä-d&-r&t-/

: NONDEADLY FORCE in this entry

non·dead·ly force

: force that is intended to cause minor bodily injury; *also* : a threat (as by the brandishing of a gun) to use deadly force called also *moderate force* —compare DEADLY FORCE in this entry

reasonable force

: Lawful force that is reasonably necessary to accomplish a particular end (as preventing theft of one's property)

unlawful force

: force that is not justified under the law and therefore is considered a tort or crime or both —compare LAWFUL FORCE in this entry—**in force** : valid and operative <a life insurance policy *in force*>

Merriam-Webster's Dictionary of Law, © 1996 Merriam-Webster, Inc.

Merriam-Webster's Dictionary of Law – Cite This Source

Main Entry: **force**

Function: *transitive verb*

Inflected Forms: **forced**; **forc·ing**

1 a : to compel by physical means often against resistance < *forced* him into the car >

b : to break open or through < *forced* the door > —see also [FORCIBLE ENTRY](#)

2 : to impose or require by law —see also [ELECTIVE SHARE](#) *forced heir* at [HEIR](#) *forced sale* at [SALE](#)

Merriam-Webster's Dictionary of Law, © 1996 Merriam-Webster, Inc.

[Free On-line Dictionary of Computing](#) – [Cite This Source](#)

Force

A dBASE dialect for MS-DOS.

The Free On-line Dictionary of Computing, © 1993–2007 Denis Howe

[U.S. Gazetteer](#) – [Cite This Source](#)

Air Force Academy, CO (CDP, FIPS 870) Location: 38.99045 N, 104.86014 W

Population (1990): 9062 (1280 housing units)

Area: 26.0 sq km (land), 0.0 sq km (water)

Hill Air Force B, UT Zip code(s): 84056

Reese Air Force, TX Zip code(s): 79489

U.S. Gazetteer, U.S. Census Bureau

[Acronym Finder](#) – [Cite This Source](#)

FORCE

[FORCE](#): in Acronym Finder

Acronym Finder, © 1988–2007 Mountain Data Systems

[On-line Medical Dictionary](#) – [Cite This Source](#)

force

[force](#): in CancerWEB's On-line Medical Dictionary

On-line Medical Dictionary, © 1997–98 Academic Medical Publishing & CancerWEB

View results from: [Dictionary](#) | [Thesaurus](#) | [Encyclopedia](#) | [All Reference](#) | [the Web](#)



ADVERTISEMENT

Perform a new search, or try your search for "force" at:

Amazon.com – Shop for books, music and more

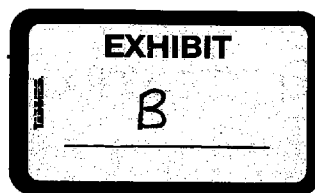
Reference.com – Encyclopedia Search

Reference.com – Web Search powered by Google

Thesaurus.com – Search for synonyms and antonyms

Get [CleverKeys](#) and look up words from any program – FREE download! *From the makers of
Dictionary.com*

Copyright © 2007, [Lexico Publishing Group, LLC](#). All rights reserved.


[Premium Content](#) | [Register](#) | [Log In](#) | [Help](#)

always

Search

[Dictionary](#) [Thesaurus](#) [Encyclopedia](#) [All Reference](#) [The Web](#)


SHE MARRIED HIM??!!

AND THEY'VE GOT 7 KIDS??



classmates.com



Find Your Old

School Here

City

State

Search

ADVERTISEMENT

6 results for: *always*
[\(Browse Nearby Entries\)](#)

Ads by Google

English Word

Write, Edit, Fix & Enhance any Text Amazing Writing Software -25% Off
www.WhiteSmoke.com

Learn English Today

Reading, Writing, Grammar & More! For \$99.99/Month. Get Help Now!
www.TutorVista.com

English Pronunciation

Download the demo to help you improve English pronunciation free.
www.PronunciationPatterns.com

Free software! Get instant dictionary, thesaurus, and encyclopedia access from most Mac and Windows programs.

[Ads by Google](#)
[Dictionary.com Unabridged \(v 1.1\)](#) – [Cite This Source](#)
al·ways [awl-weyz, -weez] [Pronunciation Key](#) – [Show IPA Pronunciation](#)

-adverb

1. every time; on every occasion; without exception: *He always works on Saturday.*
2. all the time; continuously; uninterruptedly: *There is always some pollution in the air.*
3. forever: *Will you always love me?*
4. in any event; at any time; if necessary: *She can always move back with her parents.*

[Origin: 1200-50; ME *alwayes*, *alleweyes*, *alles weis*, gen. (denoting distribution; cf. *ONCE*) of *all wei*; *alle-* lost its gen. ending and was treated as a compounding element under influence of *alle wey* **ALWAY**. See **ALL**, **WAY**, **ALWAY**, **-S**¹.]

—*Synonyms* 1. regularly, invariably, consistently. 2, 3. perpetually, everlastingly, continuously. Both **ALWAYS** and **EVER** refer to uniform or perpetual continuance. **ALWAYS** often expresses or implies repetition as producing the uniformity or continuance: *The sun always rises in the east.* **EVER** implies an unchanging sameness throughout: *Natural law is ever to be reckoned with.*

[Dictionary.com Unabridged \(v 1.1\)](#)

Based on the Random House Unabridged Dictionary, © Random House, Inc. 2006.



[American Heritage Dictionary](#) – [Cite This Source](#)

College for Active Duty?

Franklin University is a GoArmyEd preferred provider. Learn more.

www.GoArmyEd.franklin.edu
[Advertise on this site](#)

ADVERTISEMENT

al·ways   (ôl'wāz, -wīz, -wēz) [Pronunciation Key](#)
adv.

1. At all times; invariably: *always late*.
2. For all time; forever: *They will always be friends*.
3. At any time; in any event: *You can always resign if you're unhappy*.

[Middle English *alweis* : *alwei*, *always* (from Old English *ealne weg* : *ealne*, accusative of *eall*, *all*; see **all** + *weg*, *way*; see *wegh-* in Indo-European roots) + *-es*, *adv. suff.*; see **-s**³.]

(Download Now or Buy the Book)

The American Heritage® Dictionary of the English Language, Fourth Edition

Copyright © 2006 by Houghton Mifflin Company.

Published by Houghton Mifflin Company. All rights reserved.

[Online Etymology Dictionary – Cite This Source](#)

always

c.1350, compound of O.E. phrase *ealne weg* "always, quite, perpetually," lit. "all the way," with accusative of space or distance, though the oldest recorded usages refer to time. The adverbial genitive *-s* appeared c.1230 and is now the standard, though the variant *alway* survived into 1800s.

Online Etymology Dictionary, © 2001 Douglas Harper

[WordNet – Cite This Source](#)

always

adverb

1. at all times; all the time and on every occasion; "I will always be there to help you"; "always arrives on time"; "there is always some pollution in the air"; "ever hoping to strike it rich"; "ever busy" [ant: *ne'er*]
2. without variation or change, in every case; "constantly kind and gracious"; "he always arrives on time" [syn: *constantly*]
3. without interruption; "the world is constantly changing" [syn: *constantly*]
4. at any time or in any event; "you can always resign if you don't like it"; "you could always take a day off"
5. forever; throughout all time; "we will always be friends"; "I shall treasure it always"; "I will always love you"

WordNet® 3.0, © 2006 by Princeton University.

[Kernerman English Multilingual Dictionary \(Beta Version\) – Cite This Source](#)

always¹ [ˈoːlweɪz] *adverb*

at all times

Example: *I always work hard; I'll always remember her.*

Arabic: دائماً

Japanese: いつも

Chinese (Simplified): 永远

Korean: 항상

Chinese (Traditional): 永遠

Latvian: vienmēr; arvien

Czech: vždy, stále

Lithuanian: visada

Danish: altid

Norwegian: alltid

Dutch: altijd

Polish: zawsze

Estonian: alati

Portuguese (Brazil): sempre

Finnish: aina

Portuguese (Portugal): sempre

French: toujours

Romanian: întotdeauna

German: immer
 Greek: πάντα
 Hungarian: mindig
 Icelandic: ætíð
 Indonesian: selalu
 Italian: sempre

Russian: всегда
 Slovak: vždy
 Slovenian: zmeraj
 Spanish: siempre
 Swedish: alltid
 Turkish: hep, daima, her zaman

always² ['o:lweiz] *adverb*

continually or repeatedly

Example: *He is always making mistakes.*

Arabic: بِصُورَةٍ دَائِمَةٍ وَمُتَكَرِّرَةٍ
 Chinese (Simplified): 一直
 Chinese (Traditional): 一直
 Czech: trvale, pořád
 Danish: altid
 Dutch: altijd
 Estonian: ühtelugu
 Finnish: jatkuvasti
 French: constamment, sans arrêt
 German: immer, stets
 Greek: επανειλημμένα, συνεχώς
 Hungarian: állandóan
 Icelandic: sífellt
 Indonesian: terus-menerus
 Italian: sempre

Japanese: 总是不
 Korean: 언제든지
 Latvian: vienmēr; arvien
 Lithuanian: nuolat, visada
 Norwegian: alltid, støtt
 Polish: zawsze
 Portuguese (Brazil): sempre, constantemente
 Portuguese (Portugal): sempre
 Romanian: (în)continuu, fără întrerupere
 Russian: постоянно
 Slovak: stále, ustavične
 Slovenian: nenehno
 Spanish: siempre, constantemente
 Swedish: alltid, ständigt
 Turkish: hep, daima, her zaman

Kernerman English Multilingual Dictionary (Beta Version), © 2000–2006 K Dictionaries Ltd.

View results from: [Dictionary](#) | [Thesaurus](#) | [Encyclopedia](#) | [All Reference](#) | [the Web](#)

ADVERTISEMENT

[Perform a new search](#), or try your search for "always" at:

Amazon.com – Shop for books, music and more

Reference.com – Encyclopedia Search

Reference.com – Web Search powered by Google

Thesaurus.com – Search for synonyms and antonyms

Get [CleverKeys](#) and look up words from any program – FREE download! *From the makers of
Dictionary.com*

Copyright © 2007, [Lexico Publishing Group, LLC](#). All rights reserved.